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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)
9417

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on 1/30/07

Signature Michelle George

Typed or printed name Michelle George

Application Number	Filed
09/784,392	February 15, 2001

First Named Inventor: PEDERSON, D. R.

Art Unit	Examiner
2164	Wong, Leslie

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

- [ ] applicant/inventor.
- [ ] assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)
- [ ] attorney or agent of record. Registration number _____.
- [x] attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 58,256

Signature

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1/30/07
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

- [ ] *Total of _____ forms are submitted.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

NCR Docket No. 9417

In re Application of:

Donald R. Pederson et al. — Group Art Unit: 2164

Application No.: 09/784,392 — Examiner: Wong, Leslie

Filed: 02/15/2001

For: **OPTIMIZED END TRANSACTION PROCESSING**

Mail Stop AF
Commissioner for Patents
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PRE-APPEAL BRIEF REQUEST FOR REVIEW

This is a Pre-Appeal Brief Request for Review following a final Office action dated October 30, 2006. Applicant asks the Office to reconsider this application.

Remarks/Arguments

Claims 1-43 are pending in the application. The Examiner has rejected claims 1-9, 17-31, 34-35 and 38-41 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,544,359 to Tada et al. (hereinafter "Tada") in view of U.S. Patent 6,321,234 to Debrunner. In addition, the Examiner has rejected claims 10-16 and 42-43 under 35 U.S.C. § 103(a) as being unpatentable over Tada in view of Jim Gray & Andreas Reuter, "Transaction Processing: Concepts and Techniques" (Morgan Kaufmann, 1993) (hereinafter "Gray"). Finally the Examiner has rejected claims 32-33 and 36-37 under 35 U.S.C. § 103(a) as being unpatentable over Tada in view of Debrunner and further in view of Gray. In light of the arguments below, Applicant asks the Office to reconsider these rejections and to allow all of the claims.

The 103(a) Rejections over Tada in view of Debrunner

Applicant's claims 1, 17, 21, 24 and 28 recite, *inter alia*, methods of and systems for performing a flush of a transaction log from volatile storage to non-volatile storage by each of a plurality of access modules before any directive indicating commencement of an end transaction procedure is broadcast to the access modules. In rejecting claims 1, 17, 21, 24 and 28, the Examiner cites Tada as teaching, *inter alia*, "performing a flush of a transaction log from volatile storage to non-volatile storage by an access module" (*see, e.g.,* October 30, 2006 Office action, pg. 3, lines 1-2). However, the Examiner states that Tada does not teach "before any directive indicating commencement of an end transaction procedure is broadcast to the access modules" (*see, e.g.,* October 30, 2006 Office action, pg. 3, lines 4-5). In order to remedy this deficiency of Tada, the Examiner cites col. 9, lines 20-26 of Debrunner as teaching "before any directive indicating commencement of an end transaction procedure is broadcast to the access modules" (*see, e.g.,* October 30, 2006 Office action, pg. 3, lines 6-7). As an initial matter, Applicant would like to respectfully point out that in determining the differences between cited art and the claims at issue, the Examiner ***must consider the claimed invention as a whole*** (*see* 35 U.S.C. § 103(a), "A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that ***the subject matter as a whole*** would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." (emphasis added); *see also*, Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530, 1537 (Fed. Cir. 1983), "Though findings on the 'differences' from the prior art are suggested by Graham v. John Deere, supra, the question under 35 USC § 103 is not whether the differences themselves would have been obvious. Consideration of differences, like each of the findings set forth in Graham, is but an aid in reaching the ultimate determination of whether the claimed invention as a whole would have been obvious."; Ramsey Group, Inc. v. EGS Int'l, Inc., 329 F. Supp. 2d 630, 647 (D.N.C. 2004), "In making the assessment of differences, section 103 [of Title 35] specifically requires consideration of the claimed invention 'as a whole.' Inventions typically are new combinations of existing principles or features. The 'as a whole' instruction in title 35 prevents evaluation of the invention part by part. Without this

important requirement, an obviousness assessment might break an invention into its component parts (A + B + C), then find a prior art reference containing A, another containing B, and another containing C, and on that basis alone declare the invention obvious."; MPEP 2141.02). As such, it is impermissible to dissect the claim language at issue and require, for example, that Tada teach only "performing a flush of a transaction log from volatile storage to non-volatile storage" absent consideration of, *inter alia*, ***when*** this flush occurs, or Debrunner teach only "before any directive indicating commencement of an end transaction procedure is broadcast to the access modules" absent consideration of, *inter alia*, ***what*** it is that must occur before such broadcast. Rather, what is relevant in regard to Applicant's claims 1, 17, 21, 24 and 28 is that a flush of a transaction log from volatile storage to non-volatile storage by each of a plurality of access modules occur before any directive indicating commencement of an end transaction procedure is broadcast to the access modules, which neither Tada nor Debrunner, alone or in any combination, teach or suggest.

As discussed hereinabove, the Examiner concedes that Tada fails to teach a flush of a transaction log from volatile storage to non-volatile storage occurring before an end transaction directive is broadcast to a plurality of access modules. Likewise, while, as noted by the Examiner, Debrunner may teach a private log cache "containing log record(s) describing a change to . . . a page [being] flushed before the end of the transaction" (*see, e.g.*, Debrunner, col. 9, lines 20-26) , Applicant would like to respectfully point out that the above described flush of Debrunner is "from the private log cache of a task to the log page chain" (*see, e.g.*, Debrunner, col. 9, lines 27-33). As such, the relevant portion of Debrunner teaches flushing a log from volatile storage comprising a private log cache (*see, e.g.*, Debrunner, col. 9, lines 14-15, "private log cache[] – a region of memory reserved for the particular database connection or 'user,'") to volatile storage comprising a log page chain (*see, e.g.*, Debrunner, col. 8, lines 19-22, "As shown in FIG. 2B, the system log or 'syslogs' comprises an in-memory page chain 280 including, for instance, log page 281 and log page 283"), and not from volatile storage to non-volatile storage as required by Applicant's claims 1, 17, 21, 24 and 28. Therefor, the combination of Tada and Debrunner fail to teach or suggest performing a flush of a transaction log from volatile storage to non-volatile storage by each of a plurality of access modules before any directive indicating commencement of an end

transaction procedure is broadcast to the access modules as required by Applicant's claims 1, 17, 21, 24 and 28. As a result, Applicant's claims 1, 17, 21, 24 and 28, and their dependents, are patentable over Tada and Debrunner under 35 U.S.C. § 103(a).

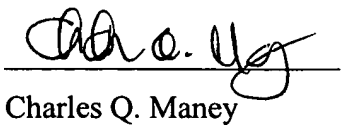
The 103(a) Rejections over Tada in view of Gray

With regard to claim 10, the Examiner states that "Tada discloses a method of performing an end transaction procedure in a database system, comprising: [a]fter commitment of a transaction, a first access module in the database system writing an end transaction indication to a first transaction log portion, the first access module being part of a cluster of access module[s]" (*see* October 30, 2006 Office action, pg. 10, lines 12-16). However, Applicant would like to respectfully point out that, in point of fact, Applicant's claim 10 recites, *inter alia*, a "method of performing an end transaction procedure in a database system, comprising: after commitment of a transaction, a first access module in the database system writing an end transaction indication to a first transaction log portion ***in volatile storage***, the first access module being part of a cluster of access modules" (emphasis added). As such, the portion of Tada relied on by the Examiner is misapplied to Applicant's claim 10 as it teaches, *inter alia*, setting "indication of completion of the transaction to the transaction file 115" (*see, e.g.,* Tada, col. 11, lines 57-16), wherein Tada further teaches the transaction file 115 is provided on "***nonvolatile mass memory*** (103)" (*see, e.g.,* Tada, col. 8, lines 19-20) (emphasis added). The Office has not pointed out, and Applicant is unaware of, any portion of Gray that teaches or suggests a method comprising, *inter alia*, after commitment of a transaction, a first access module in the database system writing an end transaction indication to a first transaction log portion in volatile storage, the first access module being part of a cluster of access modules, as required by Applicant's claim 10. As such, neither Tada nor Gray, taken alone or in combination, teaches or suggests all of the limitations of Applicant's claim 10. The result is that Applicant's claim 10 and its dependents are patentable over Tada in view of Gray under 35 U.S.C. § 103(a).

Conclusions

In light of the foregoing, Applicant asks the Office to reconsider this application and to allow all of the claims. Please apply any charges that might be due, excepting the issue fee but including fees for extensions of time, to deposit account 14-0225.

Respectfully,



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